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ABSTRACT OF THE DISCLOSURE

A mobile radio communication apparatus comprises a wireless transmitter-receiver device configured to perform transmission/reception of a radio signal, a signal processing device including a resource to which functions are defined, wherein the resource handles at least a modem function and a protocol function, and configured to perform a signal processing necessary in the transmission/reception by use of the resource, and a controller that controls the signal processing device to redefine, to the resource, another modem function and another protocol function corresponding to respective one of the mobile communication systems.